

What is claimed is:

1. A method of fabricating an integrated circuit read only memory (ROM) cell comprising:

- fabricating the first conductor layer vertically above a substrate;
- fabricating a dielectric layer over the first conductor layer;
- fabricating a second conductor layer over the dielectric layer;
- selectively removing a portion of the second conductor layer and the dielectric layer to expose the first conductor plate; and
- electrically coupling the exposed first conductor to receive a program voltage.

2. The method of claim 1 wherein the first conductor layer comprises hemispherical grained (HSG) polysilicon.

3. The method of claim 2 wherein the hemispherical grained (HSG) polysilicon is fabricated by the method comprising:

- fabricating a layer of in situ doped polysilicon;
- depositing undoped HSG over the layer of doped polysilicon; and
- applying heat to conductively dope the overlying HSG layer.

4. The method of claim 2 wherein the hemispherical grained (HSG) polysilicon is in situ doped with arsenic.

5. The method of claim 1 wherein the dielectric layer comprises either Ta₂O₅ or an oxide-nitride-oxide (ONO) dielectric.

6. The method of claim 1 wherein the second conductor layer comprises polysilicon.

7. The method of claim 1 wherein electrically coupling the exposed first conductor comprises fabricating a third conductor layer in contact with the exposed first conductor.
8. The method of claim 7 wherein the third conductor layer comprises polysilicon.
9. The method of claim 1 wherein electrically coupling the exposed first conductor comprises fabricating conductive plug in contact with the exposed first conductor.
10. A method of fabricating an integrated circuit read only memory (ROM) cell comprising:
 - fabricating the first conductor layer vertically above a substrate;
 - fabricating a dielectric layer over the first conductor layer;
 - fabricating a second conductor layer over the dielectric layer;
 - selectively etching a portion of the second conductor layer and the dielectric layer to form a plug opening and expose the first conductor plate; and
 - forming a conductive plug in the plug opening to electrically couple the first conductor to receive a program voltage.
11. The method of claim 10 wherein the first conductor layer comprises hemispherical grained (HSG) polysilicon, the dielectric layer comprises either Ta₂O₅ or an oxide-nitride-oxide (ONO) dielectric, and the second conductor layer comprises polysilicon.
12. A method of fabricating a memory device comprising:
 - fabricating first and second capacitors;
 - removing dielectric material from the first capacitor;
 - coupling a storage node of the first capacitor to a voltage source node;
 - forming a first access transistor to couple the storage node of the first capacitor

to a digit line; and

forming a second access transistor to couple the second capacitor to the digit line.

13. The method of claim 12 wherein coupling the storage node of the first capacitor to the voltage source node comprises fabricating a conductive plug in contact with the storage node.

14. The method of claim 12 further comprises removing a top conductor of the first capacitor;

15. The method of claim 14 wherein coupling the storage node of the first capacitor to the voltage source node comprises fabricating a conductive layer in contact with the storage node after the top conductor and dielectric are removed.